

up to 18 inches diameter arranged in strips according with the direction of the wind, though occasionally in bands or even in patches 8 by 10 feet. The patches are near the large islands."

Mr. Stevenson feels that "At best, the quantity of weed seen at any locality is wholly insignificant. Midway in the sargasso sea, the bunches seen in a width of a mile would form, if brought into contact, a strip not more than 65 feet wide. This, where the weed is most abundant. But the bunches are very loose, the plant material, as was estimated, occupying less than one fifth of the space, so that if the bunches were brought together so that the plant parts would be in contact, each square mile would yield a strip not more than 13 feet wide and 3 or 4 inches thick, or barely 2,500 cubic yards to the square mile. . . . The accumulation of decayed vegetable material from seaweeds must be comparatively unimportant under the sargasso sea; and what there is would be merely foreign matter in mineral deposits."

J. B.

## PROCEEDINGS OF THE CLUB

NOVEMBER 30, 1910

This meeting was held at the New York Botanical Garden. Nineteen persons were present. Vice-president Barnhart occupied the chair.

The minutes of the meeting of November 8 were read and approved. Dr. W. D. Hoyt, of Rutgers College, New Brunswick, N. J., was proposed for membership.

The first paper of the announced scientific program was by Dr. N. L. Britton on the "Flora of Pinar del Rio, Cuba." Dr. Britton gave an account of his recent botanical explorations in this province of Cuba in company with Mrs. Britton, Professor F. S. Earle, and Professor C. Stuart Gager. After a sketch of the earlier botanical explorations of Cuba by Charles Wright and others, the general floral features of the province of Pinar del Rio were described and many specimens were exhibited. An account of this work is published in the *Journal of the New York Botanical Garden* for October.

The second paper on "Thistle Hybrids from the Rocky Mountains" was by Dr. P. A. Rydberg. The speaker exhibited specimens of nineteen supposed hybrids in the genus *Carduus*, together with their putative parents. The evidences of hybridity were drawn from intermediate morphological characters, supported in most cases by close association in nature with the supposed parents. Descriptions of these *Carduus* hybrids were published in the *Bulletin* for November.

Adjournment followed.

MARSHALL A. HOWE,  
*Secretary pro tem.*

DECEMBER 13, 1910

The meeting was called to order at the American Museum of Natural History at 8:30 P.M. Tuesday, December 13, 1910, with President Rusby in the chair. One hundred people were present.

After the reading and approval of the minutes of November 30, 1910, Dr. W. D. Hoyt, Rutgers College, New Brunswick, N. J., and Miss Jessie P. Rose, Crystal, Oregon, were elected to membership.

The resignations of Prof. Henry Kraemer, Dr. Raymond H. Pond, and Mrs. L. Schöney were read and accepted.

The scientific program consisted of an illustrated lecture by Dr. Marshall A. Howe on "A Visit to the Panama Canal Zone."

The visit described by the speaker occurred in December, 1909, and January, 1910, and was undertaken under the auspices of the New York Botanical Garden, with the special object of studying and comparing the marine floras of the Atlantic and Pacific oceans, here within less than fifty miles of each other.

The marine algae proving unexpectedly scarce, especially on the Pacific side of the Isthmus, there was considerable opportunity for taking photographs of general botanical interest and the lantern-slides shown illustrated chiefly some of the more striking features of the land flora of the Canal Zone, such as the numerous native palms, the vegetation of the extensive fresh-water swamps between Colon and Gatun, the swampy forests bordering the

Chagres River, and the flora of the rocky islands of Panama Bay, A report covering some of these features of the lecture was published in the *Journal of the New York Botanical Garden* for February, 1910.

The speaker justified a somewhat extended discussion of the Panama Canal and its history by the general interest in the subject both here and on the Isthmus. Among the photographs shown were several of the Atlantic and Pacific entrances to the Canal, the Gatun locks, a flood on the Chagres River, the Culebra Cut, the Ancon Hospital, and the Taboga Sanitarium. The success of modern sanitary methods in combatting yellow fever and malaria was especially dwelt upon. The speaker alluded also to incidents of interest in the romantic early history of the Isthmus and in the building of the Panama Railroad. Photographs of the ruins of Old Panama, located about five miles east of the present city, were also shown.

Adjournment followed.

SERENO STETSON,  
*Secretary pro tem.*

## OF INTEREST TO TEACHERS\*

### COLLEGE BOTANY NOTES

An interesting set of sheets giving some of the directions for freshman and sophomore botany has been provided us by Professor Clements of the University of Minnesota. Drawings form quite a prominent part of the work as might be expected. It is directed that the drawings be drawn to scale—a thing which is more important than most of us realize. The following recommendation is also made: "As a rule, write the answers to the questions first, and make the drawings afterward." The procedure is often exactly the opposite, with the result that the drawing shows but indifferently the characteristics of the plant parts under consideration. Structure and function are too often too widely separated—in time at least—even in general courses in botany. In the work on plant cells and tissues given below

\* Conducted by Miss Jean Broadhurst, Teachers College, Columbia University.